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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,195	07/12/2000	KIYOTAKA MIURA	388-001287	8913

7590 05/06/2003

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EXAMINER
DERRINGTON, JAMES H

ART UNIT	PAPER NUMBER
1731	17

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/600,195	Applicant(s) MIURA ET AL.	
	Examiner James Derrington	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8-10 and 12-13 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Miura et al (5,978,538).

This reference discloses the process of selectively reforming an inner part of an inorganic body, i.e. glass, comprising emitting a pulsed laser beam and condensing the pulsed laser beam at a focal point in an inner part of said glass body whereby the refractive index is changed with a predetermined pattern (See Abstract and Col. 6, lines 10-18). Silicate glass when used can contain a rare earth, Ce, (See Col. 2, lines 65-67). Other glasses can contain transition metals such as La (See Col. 2, lines 6-13). Miura

et al disclose that the process is conducted "with a wavelength different from the intrinsic absorption wavelength of the glass" (See Col. 3, lines 20-23, emphasis added). Because the same manipulative steps and materials are employed, the process of Miura et al would inherently accomplish the claimed result of "whereby, said rare earth and/or transition metal ion changes its valence only at said focal point and its vicinity".

With regard to claim 12, Miura et al disclose shifting of the focal point. With regard to claim 13, selection of a desired pulse width would clearly be within the purview of one of ordinary skill in the art in view of teachings of changing the focal point diameter and other parameters (paragraph bridging Cols. 3 and 4).

Applicant's response has been reviewed; however the amendment and remarks are not persuasive for the following reasons. First, the limitations "one of an optical memory, a light absorbing device, a light emitting device and an amplifier device" are viewed as future intended uses for the inorganic body that has been treated in the claimed manner. Attention is directed to page 4, lines 27-28 which discloses that "The inorganic body reformed in this way is useful as ... ". But in addition, line 26 discusses optical characteristics such as light absorption. It is submitted that one of ordinary skill in the art would recognize that the waveguide of Miura et al would also have optical characteristics such as light absorption. As evidence of waveguides having light absorption, attention is directed to the Yoshino et al reference at Col. 4, lines 1-7 which discloses that waveguides have "light absorbing characteristics. Thus the claimed term "light absorbing device" would be inherent in the waveguides of Miura et al.

Additionally, applicant has not persuasively argued that the process of Miura et al would not inherently accomplish the claimed result of "whereby, said rare earth and/or transition metal ion changes its valence only at said focal point and its vicinity". This position is maintained for the reasons presented in the first office action, i.e. this result would be inherent because the same manipulative steps and materials are employed. Applicant should note that the pulsed laser of Miura et al has a duration of 120 or 150 femtoseconds (working examples 1 and 2) both of which fall within the range needed to effect the desired valence change described by the instant specification (paragraph bridging pages 3-4)

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miura et al (5,978,538).

Miura et al (5,978,538) has been discussed above and show transition metals such as Zn, Zr, Cd and La included in the glasses (See Col. 2, lines 15-17). It would have been obvious to include other transition metals such as those recited in claim 11 because one of ordinary skill in the art would expect that glasses containing the claimed transition metals would behave in the desired manner of changing their refractive indexes when treated with a pulsed laser in view of the teachings of Miura et al. It does not appear that applicant has presented additional arguments in regard to this rejection.

Classification Definitions for Class 75 (April 3, 1990) are cited as showing a listing of transition Metals (Page 75-8).

The Yoshino et al reference is cited for showing that waveguides possess light absorbing characteristics.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Derrington whose telephone number is 703 308-3832. The examiner can normally be reached on 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703 305-7718 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.

JAMES DERRINGTON
PRIMARY EXAMINER
ART UNIT ~~137~~ 1731

jd
May 5, 2003